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REMARKS

Claims 1-21 are pending.

No new subject matter has been added to the specification or claims.

Claims 1, 4-5, 9-10 and 14-15 stand rejected under 35 U.S.C. §102(b) over Kashiwazaki et al. (US Pub. No. 2002/0041317). Claims 2-3 stand rejected under 35 U.S.C. §103 over Kashiwazaki in view of Jones (WO 02/28650) and Cleary et al. (US6457823). Claims 6, 11 stand rejected under 35 U.S.C. §103 over Kashiwazaki in view of Onishi et al. (US Pub. No. 2001/0015745). Claims 7, 12 stand rejected under 35 U.S.C. §103 over Kashiwazaki in view of Kasperchik et al. (US5636878). Claims 16, 19 stand rejected under 35 U.S.C. §103 over Kashiwazaki in view of Onishi. Claims 17, 20 stand rejected under 35 U.S.C. §103 over Kashiwazaki in view of Kasperchik. Claims 18, 21 stand rejected under 35 U.S.C. §103 over Kashiwazaki in view of Lin et al. (US5531818). These rejections are respectfully traversed as follows.

In order to sustain a §102 rejection, each and every feature of the claims must be taught by the reference.

In determining a case for obviousness under 35 U.S.C. §103, it is necessary to show that the combination of prior art teachings is proper, and that those teachings constitute an improvement which results from the predictable use of prior art elements according to their established functions. Furthermore, obviousness is a question of law based on the underlying factual inquiries of:

- (A) Determining the scope and content of the prior art;
- (B) Ascertaining the differences between the claimed invention and the prior art; and
- (C) Resolving the level of ordinary skill in the art.

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The Applicant disagrees with some of the substantive factual findings by the Office and traverses those findings based on the following reasoned statements.

Kashiwazaki discloses an inkjet ink comprising a first pigment, a second pigment, a polymer dispersant and an aqueous medium such that the ink can form an ink dot of a proper size, uniform and high density in the dot, with little feathering or blur (see abstract). Paragraph [0119] discloses that this ink can be ejected by using any known method for printing inkjet ink. Paragraph [0122] further discloses an ink set comprising a black ink and at least one color ink, each of them having a composition as described above.

An embodiment of an apparatus using a 4 color ink set is shown in Fig.8 wherein print head 101Bk ejects a black ink composition as described above, print head 101C ejects a cyan ink composition as described above, etc. Kashiwazaki teaches that the interaction between the first pigment, the second pigment and the polymer dispersant within the ink provides a quality improvement of the printed dot (see paragraph [0123]). Paragraphs [0123]-[0126] further disclose that this interaction can also be achieved by in-situ mixing the inkjet ink from two or three liquids (referred to as a first ink, a second ink and a third ink) wherein each liquid includes a specific component of the one inkjet ink: e.g. the first liquid comprises the first pigment, the second liquid comprises the second liquid and the third liquid comprises additional dyes. In order to provide the necessary interaction between these components, the different liquids comprising these components are jetted drop-in-drop so that they can mix in the liquid phase. Therefore, the liquids that are jetted drop-in-drop or wet-on-wet are not individual inkjet inks – only the combination of these liquids can be considered an inkjet ink. In other words, these liquid drops are combined to create an inkjet ink.

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Kashiwazaki thus discloses drop-in-drop or wet-on-wet printing of various liquids (not inks) that do not qualify as inkjet inks. In conclusion, Kashiwazaki does not disclose a second ink drop being applied on to a first ink drop without intermediate solidification. Kashiwazaki neither discloses that the first and the second inks have a different viscosity, surface tension or curing speed.

Jones (WO 02/28652 A1) discloses a tri-color inkjet printer cartridge that includes features to compensate for viscosity variations between inkjet inks of a different color in the same ink set. In paragraph [0004] Jones discloses that the effect of a different viscosity is a different flow rate through the print head and consequently different drop sizes. Paragraph [0028] starts with the phrase: "To overcome the varying ink viscosity and resulting different flow rates ...". The last sentence of paragraph [0030] then concludes: "As a result, the inks all flow at approximately the same rate". *Jones therefore clearly teaching against an intended use of different ink viscosities. Instead Jones teaches to compensate for variations in ink viscosity in order to get a uniform behavior for all inks in the tricolor printer cartridge.*

Fig.4 of the pending case confirms that ink formulations within a same ink set are targeted towards substantially the same ink viscosity whereby variations may arise but are not intended. In this respect, the applicant also refers to the response to the Office Action mailed on June 5, 2006 (cf. applicant's letter of August 21, 2006) wherein the common practice for inkjet ink design is explained. In conclusion, Jones does not disclose that a second ink is applied onto a first ink without intermediate solidification and does not teach the intended use of inks with a different viscosity, surface tension or curing speed.

The cited references in Kasperchik (US 6536878 B2), Onishi (US 2001/0015745 A1) and Lin (US 5531818) disclose preferred ranges for surface tension, respectively viscosity and

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drying times. None of these references disclose the use of inks with a different viscosity, surface tension or curing speed within the same ink set or inkjet printing process. They merely state that inkjet inks with different viscosity, surface tension or curing speed exist. In this respect, these disclosures are similar to previously discussed prior art references, e.g. Carlson (cf. applicant's letter of August 21, 2006).

Conclusion

None of the applied prior art documents alone or in combination disclose or suggest a first and a second ink drop, applied one onto the other and having a different viscosity, surface tension or curing speed. The "liquids" disclosed by Kashiwazaki can not be considered inks for the reasons discussed above. Also, Jones teaches away from the use of inks with intended viscosity differences. Hence even if the cited references were combined, the present invention as claimed would not result.

The prior art made of record and not relied upon has been reviewed but is not considered material to the patentability of the invention.

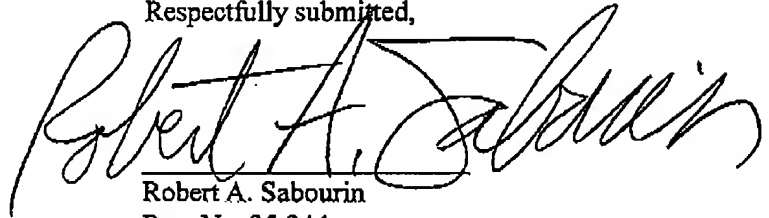
It should be noted that the above arguments are directed towards certain patentable distinctions between the claims and the prior art cited. However, the patentable distinctions between the pending claims and the prior art cited are not necessarily limited to those discussed above.

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In view of the foregoing remarks and amendments, it is respectfully submitted that each rejection of the Office Action has been addressed and overcome so that this application is now in condition for allowance. The Examiner is respectfully requested to reconsider the application, withdraw the rejections and/or objections, and pass the application to issue. Should questions arise during examination, the Examiner is welcome to contact the applicant's attorney as listed below.

Respectfully submitted,



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